

FIG. 1

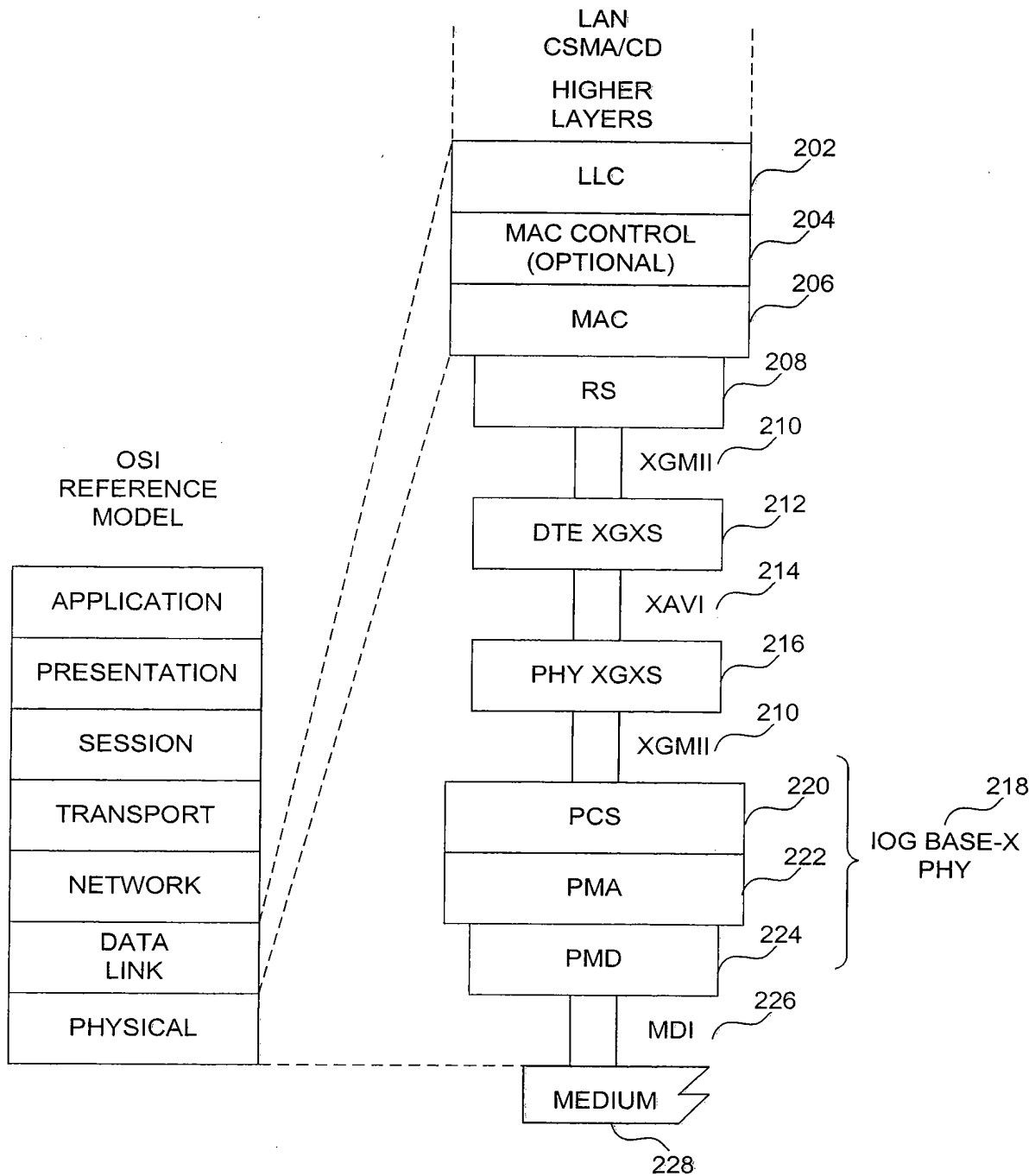


FIG. 2

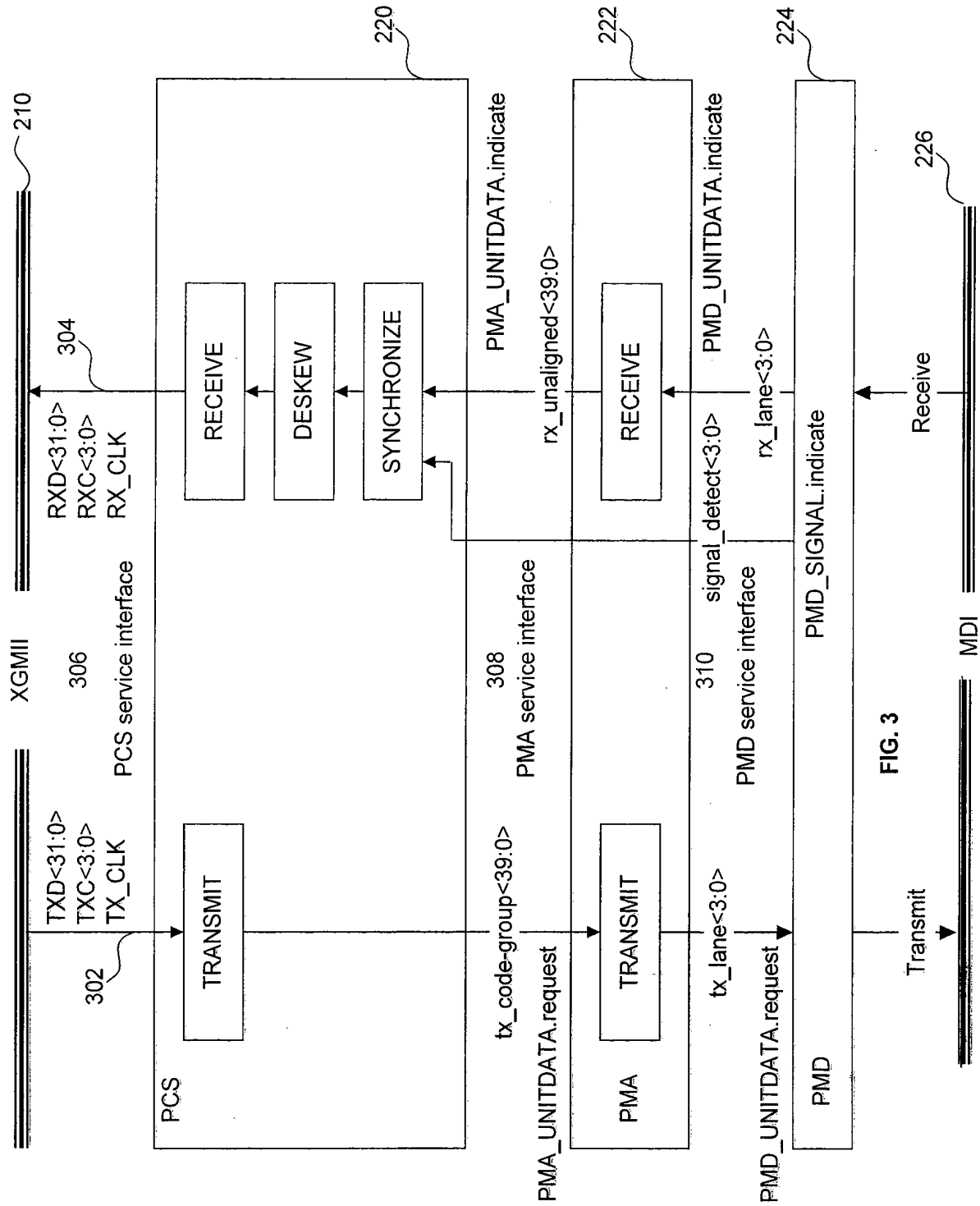


FIG. 3

400

Lane 0 only shown

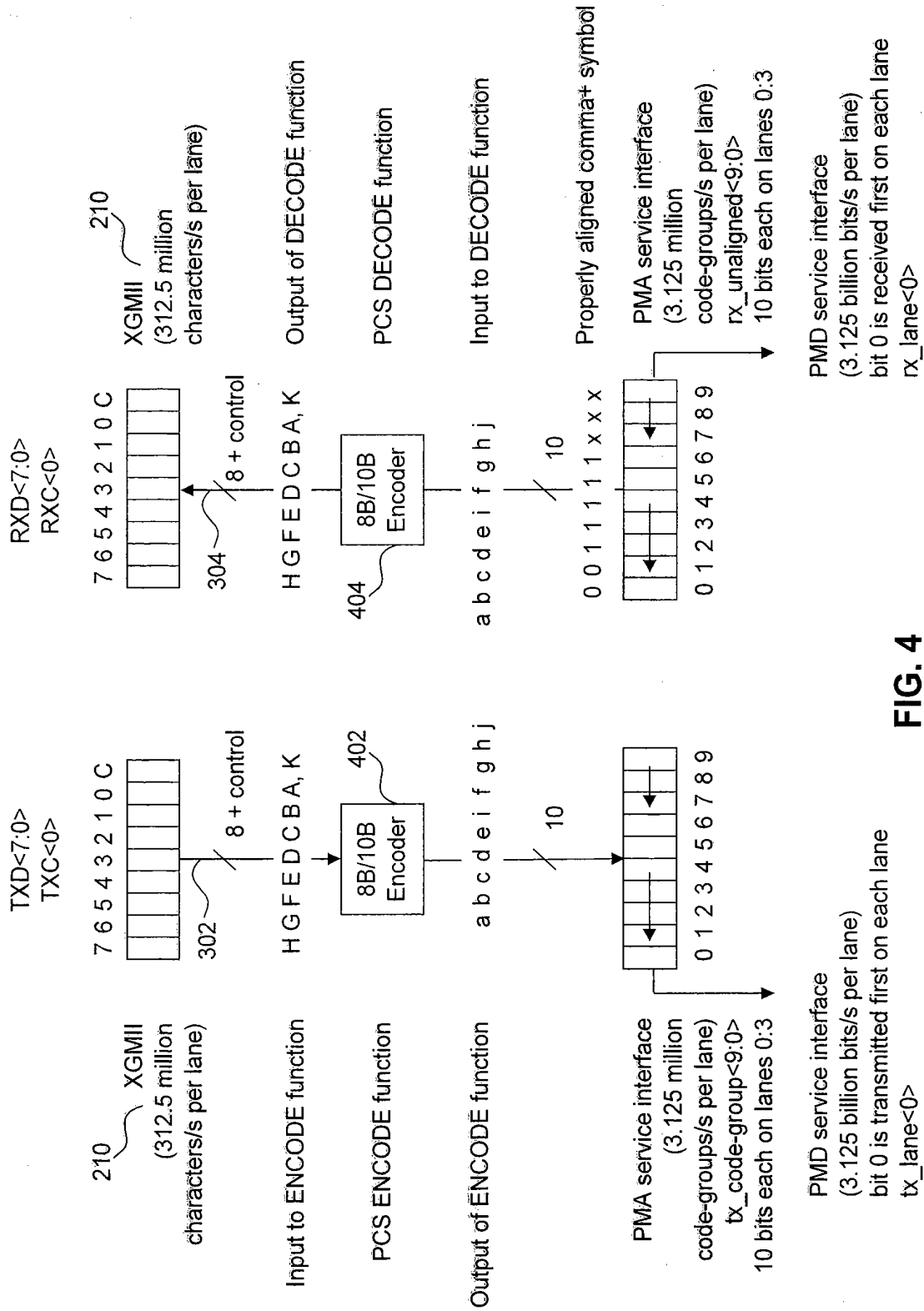


FIG. 4

| XGMII TxC | XGMII TxD | PCS code-group | Description |
|---|------------------------------|-------------------------|--------------------------|
| 0 | 00 through FF | Dxx.y | Normal data transmission |
| 1 | 07 | K28.0 or K28.3 or K28.5 | Idle in |
| 1 | 07 | K28.5 | Idle in T |
| 1 | 9C | K28.4 | Sequence |
| 1 | FB | K27.7 | Start |
| 1 | FD | K29.7 | Terminate |
| 1 | FE | K30.7 | Error |
| 1 | Other value in Table 36-2 | See Table 36-2 | Reserved XGMII character |
| 1 | Any other value | K30.7 | Invalid XGMII character |
| NOTE—Values in TXD column are in hexadecimal. | | | |

Table 36-2—Valid special code-groups

| Code Group Name | Octet Value | Octet Bits HGF EDCBA | Current RD - | Current RD + | Notes |
|----------------------------|----------------|-------------------------|--------------|--------------|-------|
| | | | abcdei fghj | abcdei fghj | |
| K28.0 | 1C | 000 11100 | 001111 0100 | 110000 1011 | 1 |
| K28.1 | 3C | 001 11100 | 001111 1001 | 110000 0110 | 1,2 |
| K28.2 | 5C | 010 11100 | 001111 0101 | 110000 1010 | 1 |
| K28.3 | 7C | 011 11100 | 001111 0011 | 110000 1100 | 1 |
| K28.4 | 9C | 100 11100 | 001111 0010 | 110000 1101 | 1 |
| K28.5 | BC | 101 11100 | 001111 1010 | 110000 0101 | 2 |
| K28.6 | DC | 110 11100 | 001111 0110 | 110000 1001 | 1 |
| K28.7 | FC | 111 11100 | 001111 1000 | 110000 0111 | 1,2 |
| K23.7 | F7 | 111 10111 | 111010 1000 | 000101 0111 | |
| K27.7 | FB | 111 11011 | 110110 1000 | 001001 0111 | |
| K29.7 | FD | 111 11111 | 101110 1000 | 010001 0111 | |
| K30.7 | FE | 111 11110 | 011110 1000 | 100001 0111 | |
| NOTE 1 — Reserved. | | | | | |
| NOTE 2 — Contains a comma. | | | | | |

FIG. 5

| Code | Ordered_Set | Number of code-groups | Encoding |
|--|----------------------|-----------------------|---------------------------------------|
| I | Idle | | Substitute for XGMII Idle |
| K | Sync column | 4 | /K28.5/K28.5/K28.5/K28.5/ |
| R | Skip column | 4 | /K28.0/K28.0/K28.0/K28.0/ |
| A | Align column | 4 | /K28.3/K28.3/K28.3/K28.3/ |
| | Encapsulation | | |
| S | Start column | 4 | /K27.7/Dx.y/Dx.y/Dx.y/ ^a |
| T | Terminate column | 4 | Terminate code-group in any lane |
| T ₀ | Terminate in Lane 0 | 4 | /K29.7/K28.5/K28.5/K28.5/ |
| T ₁ | Terminate in Lane 1 | 4 | /Dx.y/K29.7/K28.5/K28.5/ ^a |
| T ₂ | Terminate in Lane 2 | 4 | /Dx.y/Dx.y/K29.7/K28.5/ ^a |
| T ₃ | Terminate in Lane 3 | 4 | /Dx.y/Dx.y/Dx.y/K29.7/ ^a |
| | Control | | |
| /E/ | Error code-group | 1 | /K30.7/ |
| | Link Status | | |
| Q | Sequence ordered_set | 4 | /K28.4/Dx.y/Dx.y/Dx.y/ ^a |
| LF | Local Fault signal | 4 | /K28.4/D0.0/D0.0/D1.0/ |
| RF | Remote Fault signal | 4 | /K28.4/ D0.0/D0.0/D2.0/ |
| Qrsvd | Reserved | 4 | LF and RF |
| | Reserved | | |
| Fsig | Signal ordered_set | 4 | /K28.2/Dx.y/Dx.y/Dx.y/ ^{a,b} |
| ^a /Dx.y/ indicates any data code-group. | | | |
| ^b /Reserved for INCITS T11. | | | |

FIG. 6

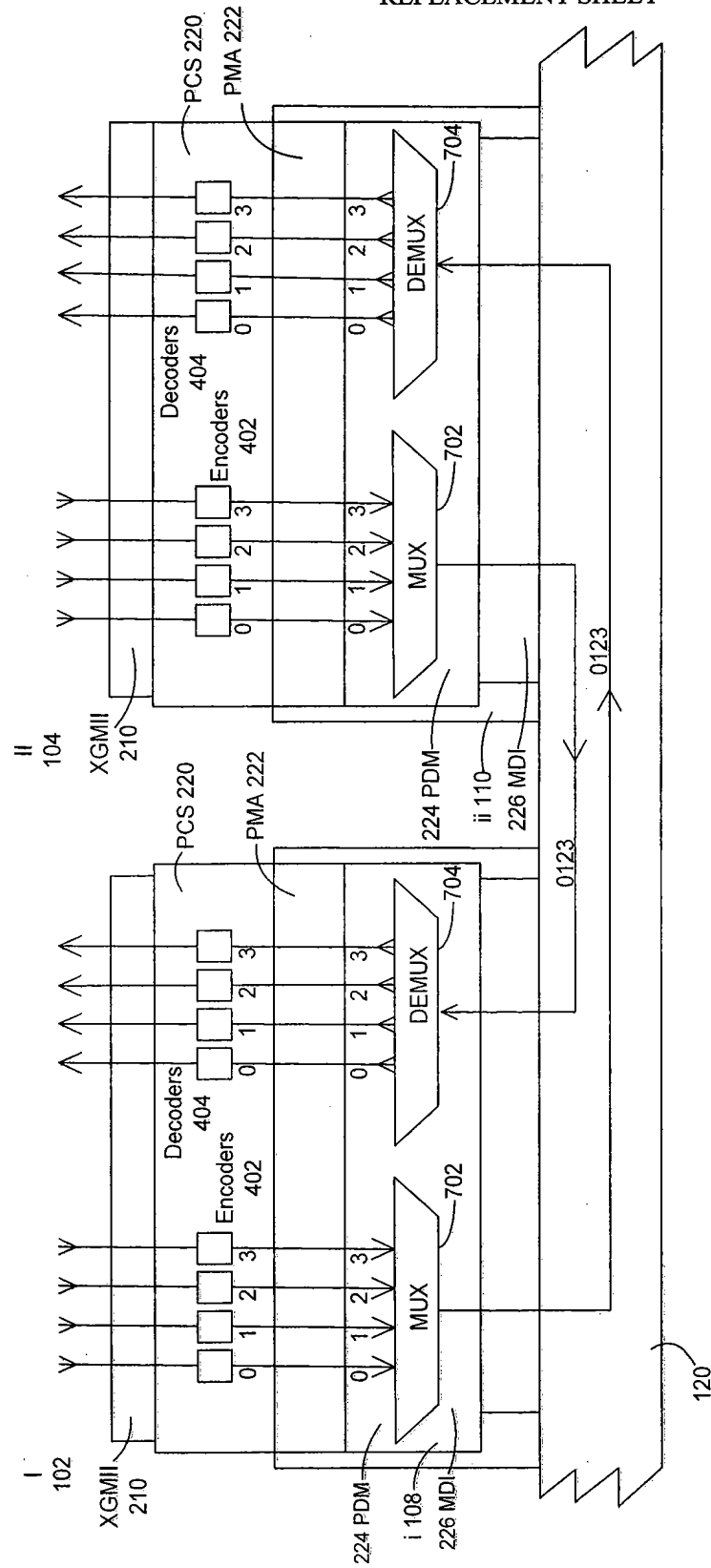


FIG. 7A

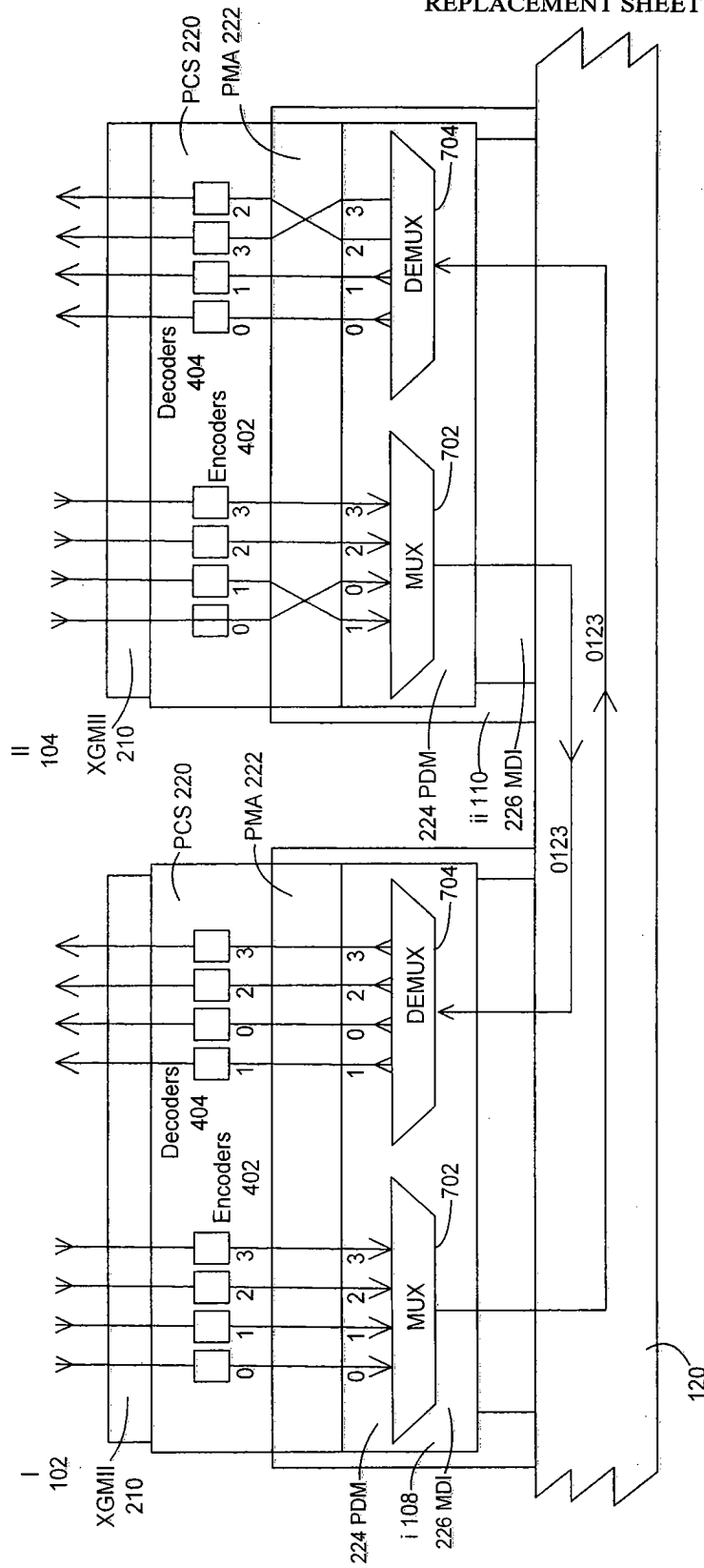


FIG. 7B

800

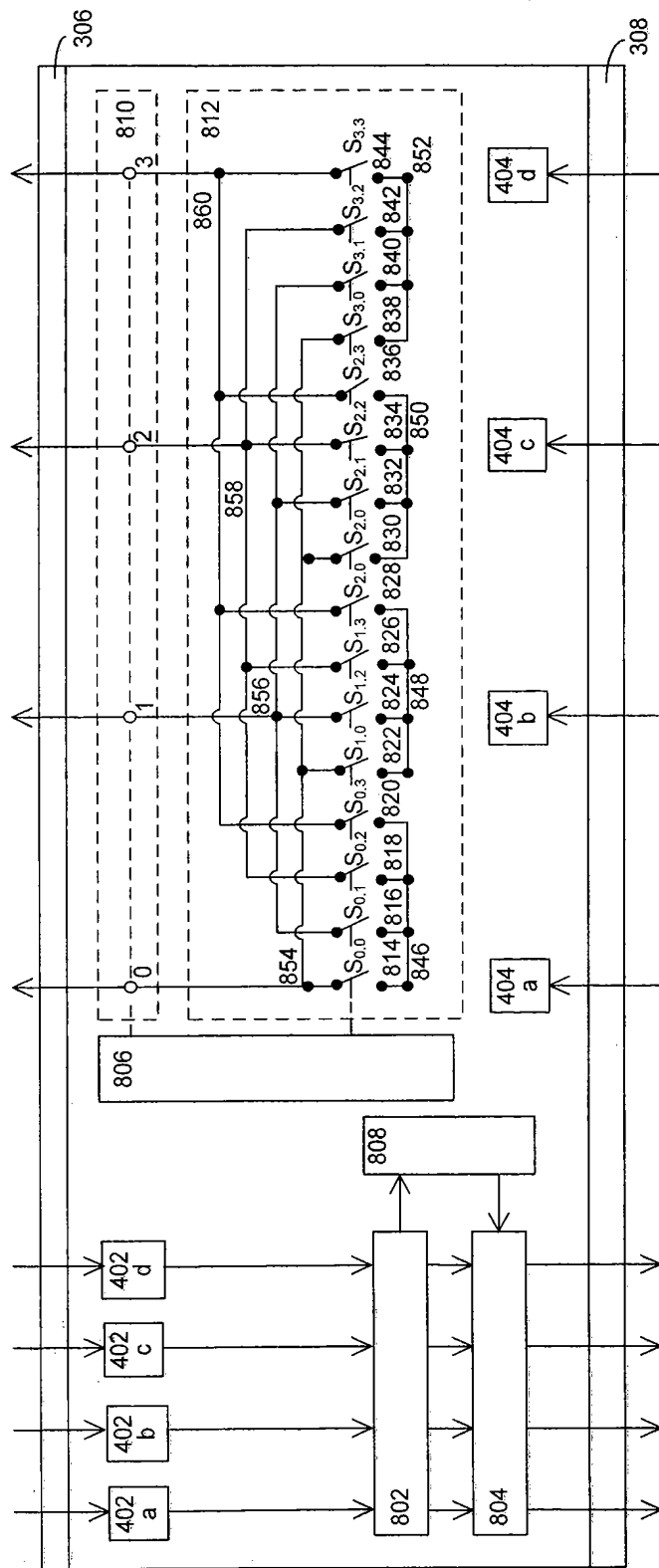


FIG. 8

| Received Special Ordered Set | Lane Correction Switch Configuration |
|------------------------------|---|
| /Da.b/Dc.d/De.f/Dg.h/ | /S _{0,0} /S _{1,1} /S _{2,2} S _{3,3} / |
| /Da.b/Dc.d/Dg.h/De.f/ | /S _{0,0} /S _{1,1} /S _{2,3} /S _{3,2} / |
| /Da.b/De.f/Dc.d/Dg.h/ | /S _{0,0} /S _{1,2} /S _{2,1} /S _{3,3} / |
| /Da.b/De.f/Dg.h/Dc.d/ | /S _{0,0} /S _{1,2} /S _{2,3} /S _{3,1} / |
| /Da.b/Dg.h/Dc.d/De.f/ | /S _{0,0} /S _{1,3} /S _{2,1} /S _{3,2} / |
| /Da.b/Dg.h/De.f/Dc.d/ | /S _{0,0} /S _{1,3} /S _{2,2} /S _{3,1} / |
| /Dc.d/Da.b/De.f/Dg.h/ | /S _{0,1} /S _{1,0} /S _{2,2} /S _{3,3} / |
| /Dc.d/Da.b/Dg.h/De.f/ | /S _{0,1} /S _{1,0} /S _{2,3} /S _{3,2} / |
| /Dc.d/De.f/Da.b/Dg.h/ | /S _{0,1} /S _{1,2} /S _{2,0} /S _{3,3} / |
| /Dc.d/De.f/Dg.h/Da.b/ | /S _{0,1} /S _{1,2} /S _{2,3} /S _{3,0} / |
| /Dc.d/Dg.h/Da.b/De.f/ | /S _{0,1} /S _{1,3} /S _{2,0} /S _{3,2} / |
| /Dc.d/Dg.h/De.f/Da.b/ | /S _{0,1} /S _{1,3} /S _{2,2} /S _{3,0} / |
| /De.f/Da.b/Dc.d/Dg.h/ | /S _{0,2} /S _{1,0} /S _{2,1} /S _{3,3} / |
| /De.f/Da.b/Dg.h/Dc.d/ | /S _{0,2} /S _{1,0} /S _{2,3} /S _{3,1} / |
| /De.f/Dc.d/Da.b/Dg.h/ | /S _{0,2} /S _{1,1} /S _{2,0} /S _{3,3} / |
| /De.f/Dc.d/Dg.h/Da.b/ | /S _{0,2} /S _{1,1} /S _{2,3} /S _{3,0} / |
| /De.f/Dg.h/Da.b/Dc.d/ | /S _{0,2} /S _{1,3} /S _{2,0} /S _{3,1} / |
| /De.f/Dg.h/Dc.d/Da.b/ | /S _{0,2} /S _{1,3} /S _{2,1} /S _{3,0} / |
| /Dg.h/Da.b/Dc.d/De.f/ | /S _{0,3} /S _{1,0} /S _{2,1} /S _{3,2} / |
| /Dg.h/Da.b/De.f/Dc.d/ | /S _{0,3} /S _{1,0} /S _{2,2} /S _{3,1} / |
| /Dg.h/Dc.d/Da.b/De.f/ | /S _{0,3} /S _{1,1} /S _{2,0} /S _{3,2} / |
| /Dg.h/Dc.d/De.f/Da.b/ | /S _{0,3} /S _{1,1} /S _{2,2} /S _{3,0} / |
| /Dg.h/De.f/Da.b/Dc.d/ | /S _{0,3} /S _{1,2} /S _{2,0} /S _{3,1} / |
| /Dg.h/De.f/Dc.d/Da.b/ | /S _{0,3} /S _{1,2} /S _{2,1} /S _{3,0} / |

FIG. 9

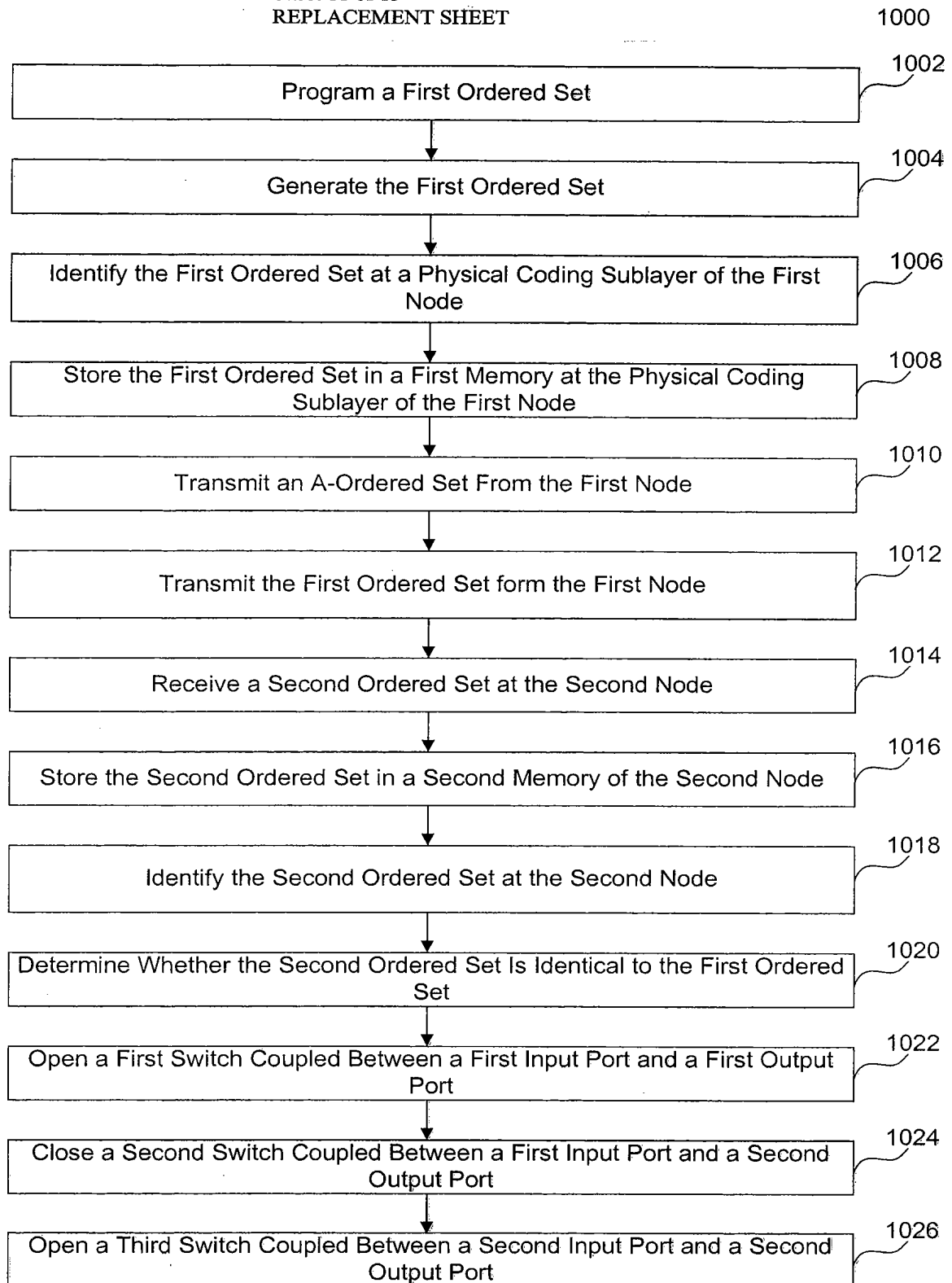


FIG. 10A

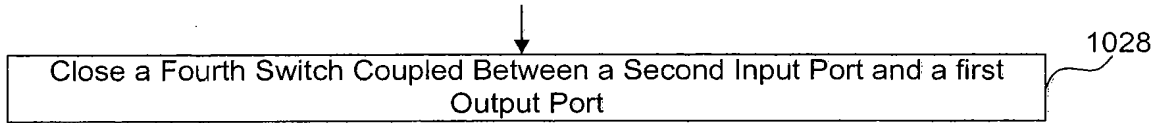


FIG. 10B

1100

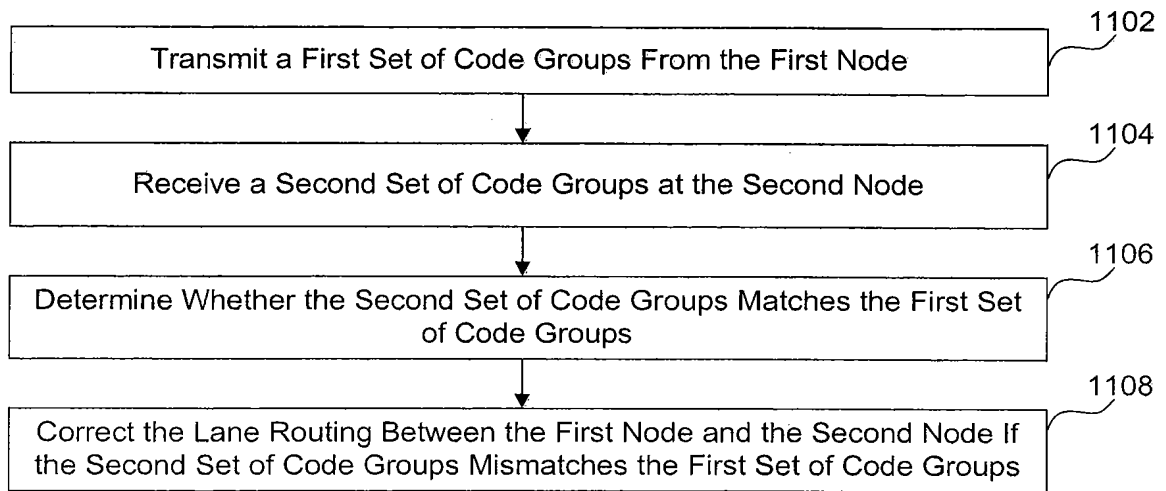


FIG. 11